

US EPA ARCHIVE DOCUMENT

## **SESSION 1**

# **Shifting Thinking from the 2005 Goals to the 2008 Goals and Remedy Selection**

## **BRIEF REVIEW OF THE TRADITIONAL CORRECTIVE ACTION PROCESS**



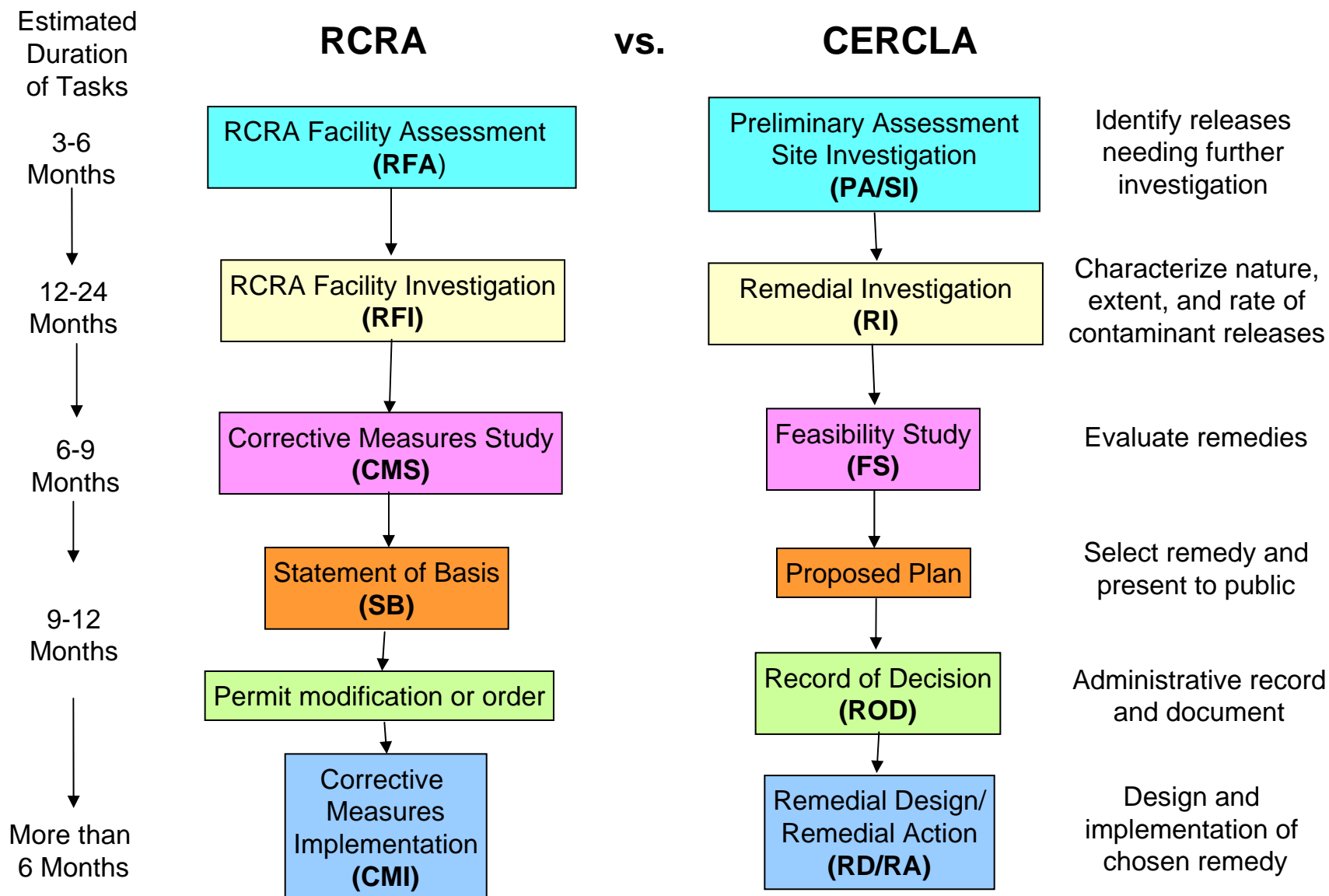
# Traditional Corrective Action Process – Key Dates

- ▶ Hazardous and Solid Waste Amendments (HSWA) (1984)
- ▶ Proposed Subpart S (1990)
- ▶ Advanced Notice of Proposed Rulemaking (1996)
- ▶ Environmental Indicators Guidance (1999)
- ▶ Environmental Indicators 2005 Goals
  - Current Human Exposures Under Control (CA725)
  - Migration of Contaminated Groundwater Under Control (CA750)
- ▶ 2008 Goals
  - Final Remedy Selected (CA400) and Construction Complete (CA550)

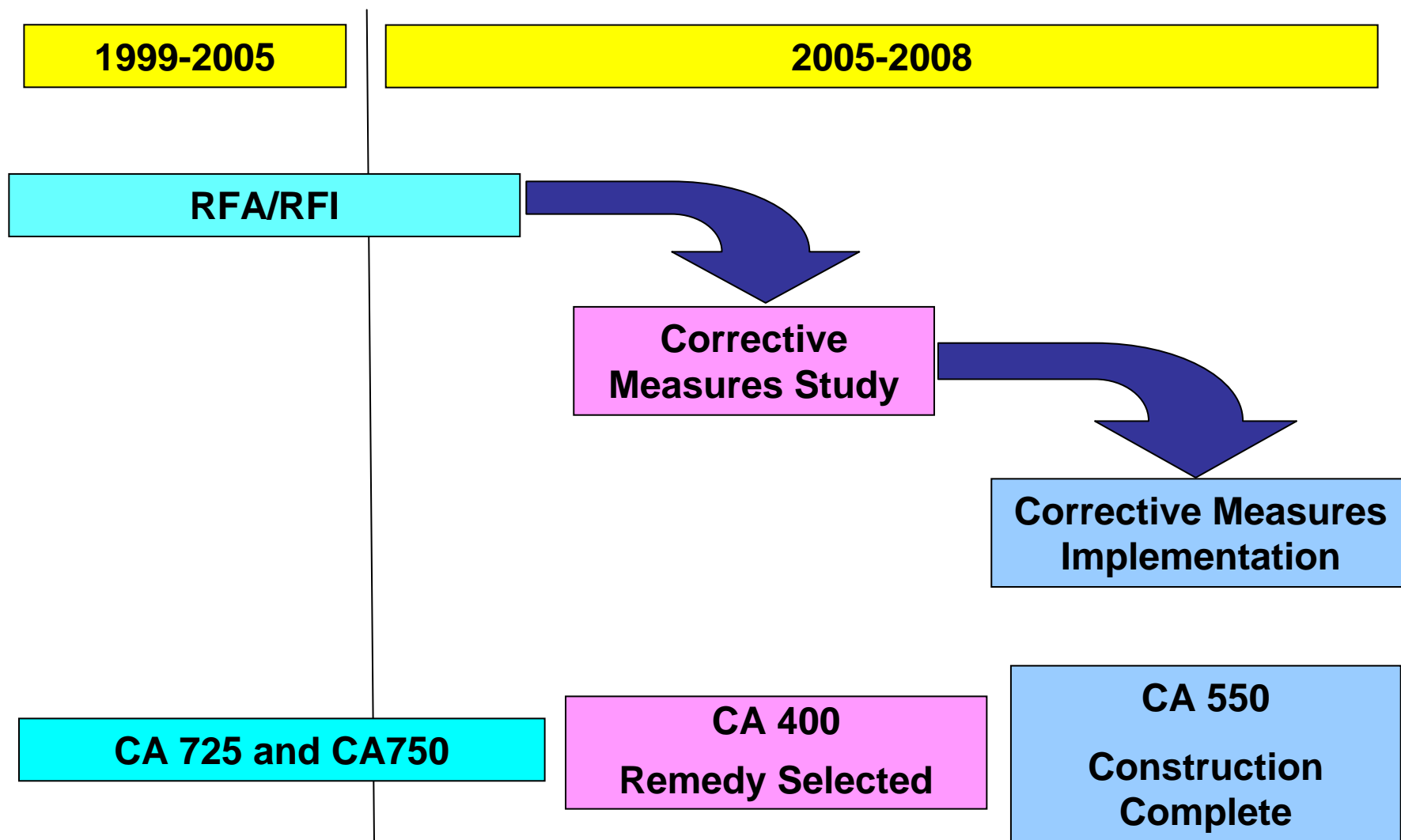


Traditional CA Process

# Comparison of RCRA Corrective Action and CERCLA Remedial Process



# Corrective Action Goals



## Five Traditional Corrective Action Components

- ▶ *RCRA Facility Assessment (RFA)*—initially assess the site to determine whether cleanup may be needed and to determine areas of potential concern
- ▶ *RCRA Facility Investigation (RFI)*—used to ascertain the nature and extent of contamination and to gather information to select an appropriate remedy
- ▶ *Interim Measures*—used to control or abate ongoing risks to human health and the environment in advance of the final remedy selection
- ▶ *Corrective Measures Study (CMS)*—EPA and facility owners and operators will evaluate different remedial alternatives
- ▶ *Corrective Measures Implementation (CMI)*—involves detailed remedy design, remedy construction, remedy operation and maintenance, and remedy completion



## RCRA Facility Assessment (RFA)

### ▶ Purpose

- Identify solid waste management units (SWMUs) and areas of concern (AOCs)
- Determine potential for release to soil, groundwater, surface water, and air

### ▶ SWMU

- Any discernible waste management unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released (Advanced Notice of Proposed Rulemaking; 61 FR 19432, May 1, 1996.)

### ▶ AOC

- Release of potential hazardous waste or hazardous constituents that may warrant investigation or remediation as determined by the Administrative Authority (Advanced Notice of Proposed Rulemaking; 61 FR 19432, May 1, 1996.)



# RCRA Facility Investigation (RFI)

## ► Objective

- Delineate the nature and extent of contamination
- Provide a history of the site and a description of current conditions
  - Facility operations description
  - History of ownership, operations, and waste management
  - Provide background data (if applicable)





# RCRA Facility Investigation (RFI)

- ▶ Report Summary
  - Sampling procedures
  - Sampling strategies and locations
    - Innovative procedures
    - Triad approach
  - Results of investigation and analytical data
  - Interpretation
    - Extent of contamination
    - Need for interim or corrective measures

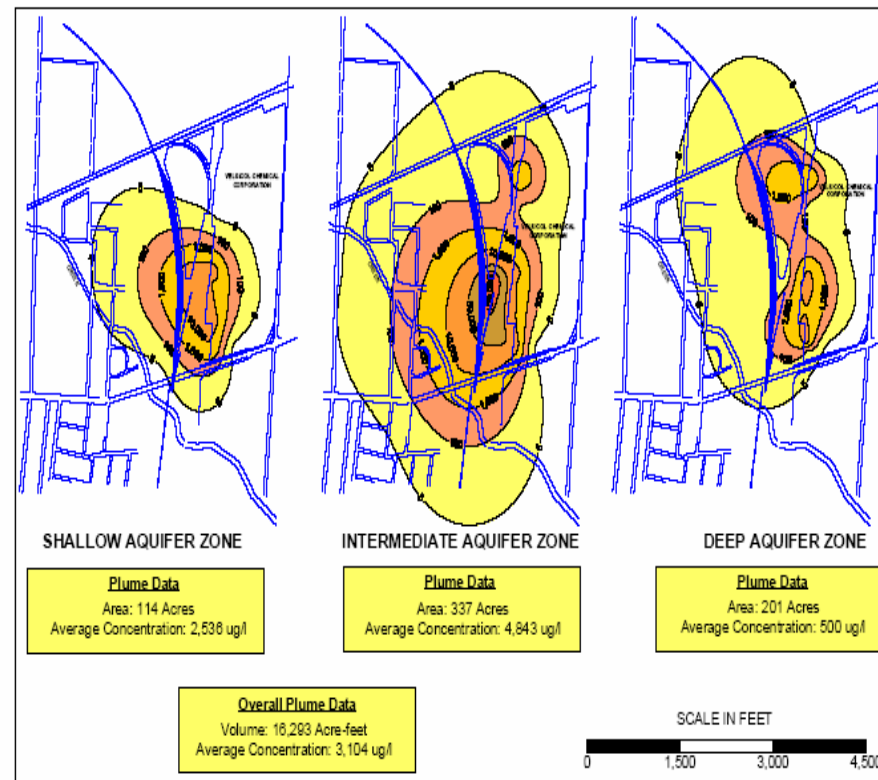


Figure 2. Iso-concentration Map of Carbon Tetrachloride - August 2000

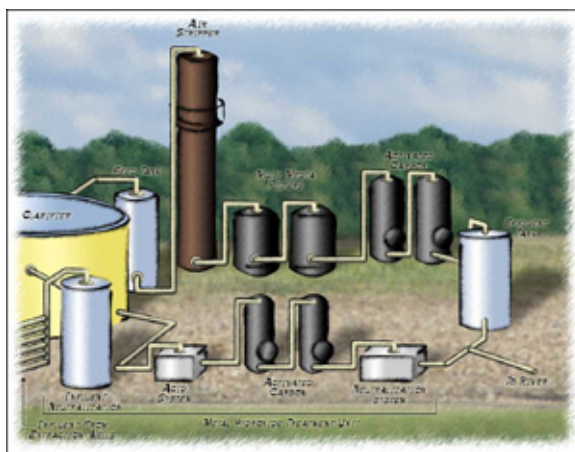
## Corrective Measures Study (CMS)

- ▶ Objective
  - Media protection standards or remedial goals are proposed
  - Identify reasonable remedial alternatives (i.e., corrective measures)
- ▶ Must meet three performance standards
  - Attain media cleanup standards
  - Control source(s) of the release
  - Protect human health and the environment
- ▶ Balancing factors are:
  - Long-term reliability and effectiveness
  - Reduction of toxicity, mobility, or volume of waste
  - Short-term effectiveness
  - Implementability
  - State and community acceptance
  - Cost



# Corrective Measures Implementation (CMI)

- ▶ Implementing the Remedy
  - Design
  - Construction
  - Maintenance
  - Monitoring the success of the remedy



Traditional CA Process

# EPA Continues to Reform the Corrective Action Program

- ▶ Special provisions to encourage cleanup
- ▶ RCRA Cleanup Reforms
- ▶ One Cleanup Program

